

ABSTRACT OF THE DISCLOSURE

A carcass structure for vehicle wheel tyres includes at least one carcass ply and a pair of annular reinforcing structures. The at least one carcass ply includes a first and a second series of strip segments consecutively arranged along a circumferential development of a toroidal support and including at least two filiform elements, positioned longitudinally and parallel to each other, at least partially coated by at least one layer of raw elastomer material. The annular reinforcing structures include at least one primary portion and at least one additional portion. The at least one primary portion includes a first circumferentially-inextensible annular insert, a filling body, and at least one second circumferentially-inextensible annular insert. The at least one additional portion comprises at least one third circumferentially-inextensible annular insert. The annular inserts are each formed by at least one elongated element extending in concentric turns.

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